

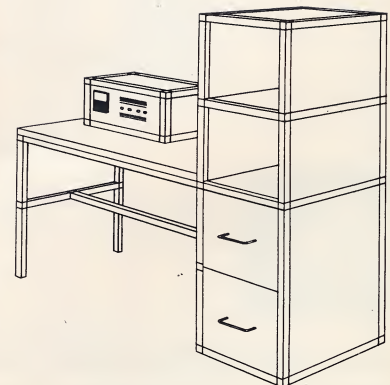
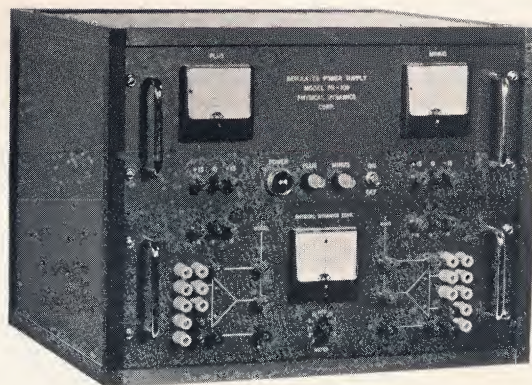
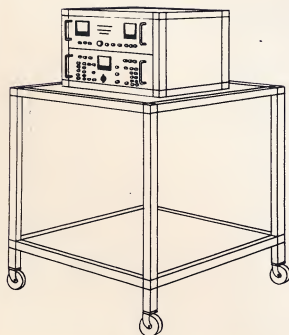
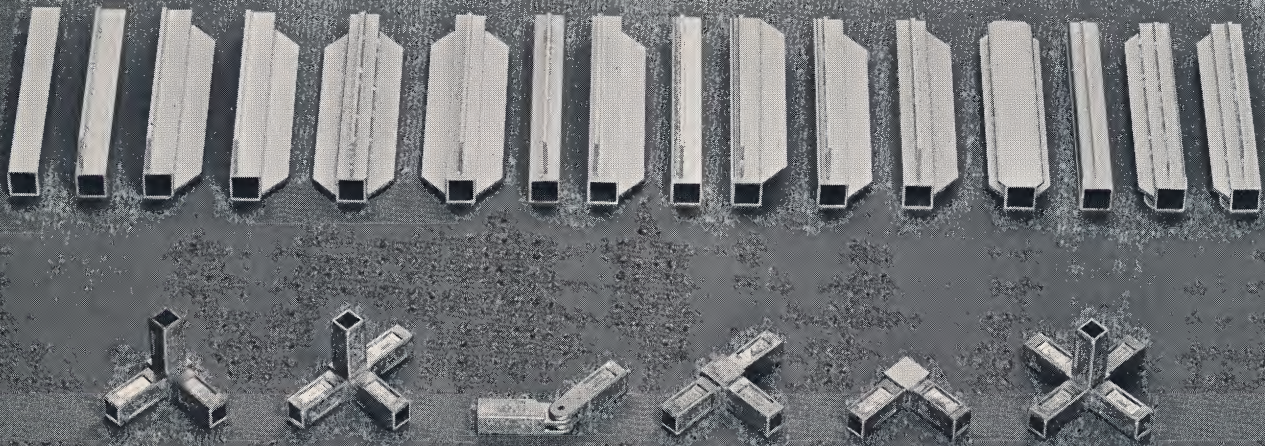


AMCO

M603

CATALOG NO. 208
REVISION NO. 1

LIGHTWEIGHT ALUMINUM ENCLOSURE SYSTEM FOR FAST, EASY, IN-PLANT ASSEMBLY





AMCO ENGINEERING COMPANY POLICY

A. CUSTOMER SATISFACTION

All AMCO enclosures, accessories and/or components guaranteed 100% against defective material or workmanship for a period of one year from date of purchase.

B. PROMPT DELIVERY

Shipment on orders for standard items made within 3 weeks from date of receipt of order. Orders including special requirements shipped within 3-6 weeks depending on the nature of the special work. These deliveries are realistic.

C. CHOICE OF METHOD OF SHIPMENT

Unless otherwise specified AMCO extrusions and castings are shipped bulk packed per order.

Upon request, console arrangements will be completely assembled at the factory and shipped like furniture, via van. Console arrangements may also be crated for shipment. Crating and assembly charges will be quoted for each such order, as console arrangements vary.

D. DESIGN CHANGES

To allow continued progress, improvements and adaptability in an advancing industry, AMCO Engineering Co. reserves the right to make product changes as deemed necessary and when necessary. Notification will be made on any major changes.

E. PATENT NO. 3087768—OTHER PATENTS PENDING

This catalog and its appendant drawings contain information deemed proprietary to AMCO Engineering Co. and are to be used only for the purpose for which they are submitted, and further shall not be copied in whole or in part without express written permission first obtained from AMCO Engineering Co.

F. PRICE DISCOUNTS

Purchase orders for Custom, Semi-Custom, Aluminum, Lightweight Aluminum and applicable accessories, may be combined for discount advantages if they are received by AMCO on the same day and all have the same delivery date. In no case may orders for RFI be combined with other systems for discount privileges. It is suggested that such combinations be noted to prevent error. Orders received on different dates or combinations of orders with different delivery dates cannot be combined for discount advantages. Additions to previous orders will be treated as new orders where discounts are concerned. See price list for discount schedules.

G. CANCELLATION AND RETURN CHARGES

A minimum charge of 10% will be made on any order cancellation. Additional charges may or may not be applied depending on the nature of the order and the extent it has been processed. A 25% charge will be applied against returned merchandise. All returns are to be freight prepaid and not made without prior written approval of AMCO Engineering Co.

H. TERMS

All quotations, order confirmations, published prices and discounts based on delivery F.O.B. AMCO Engineering Co., 7333 West Ainslie Street, Chicago, Illinois 60656, except where such terms are precluded on government bids. Invoice terms—net 15 days.

I. SALES REPRESENTATION

Experienced factory sales representatives in all principal cities of the U.S.A. and in Canada, many of whom maintain stock on hand for customer service. See sales representative listing.

J. RETURNS

All AMCO products are thoroughly inspected prior to shipment and shipped F.O.B. AMCO. Return for receipt of damaged equipment will not be accepted without prior written approval of AMCO Engineering Co.

Over 23 Consecutive Years

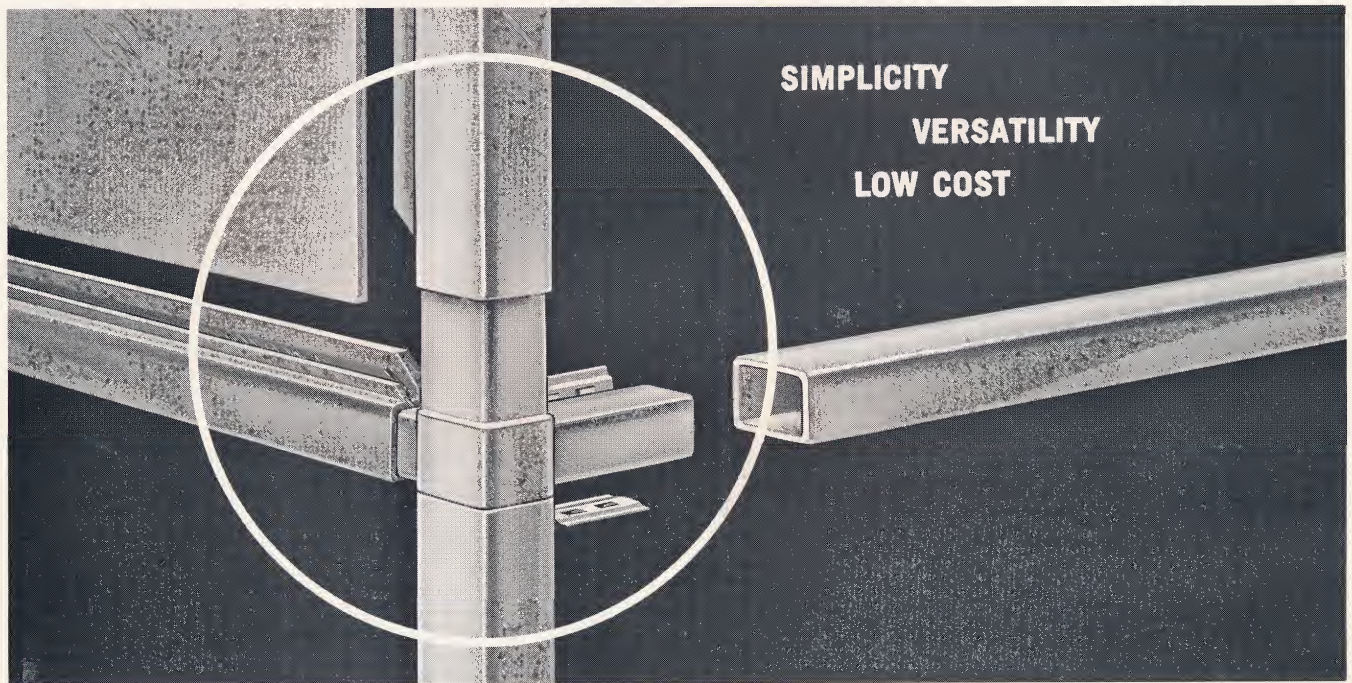


AMCO ENGINEERING CO.

7333 West Ainslie Street, Chicago, Illinois 60656; Phone: (Area Code 312) UNDERhill 7-8500; TWX: 312-265-1376



HOW THE AMCO SYSTEM WORKS

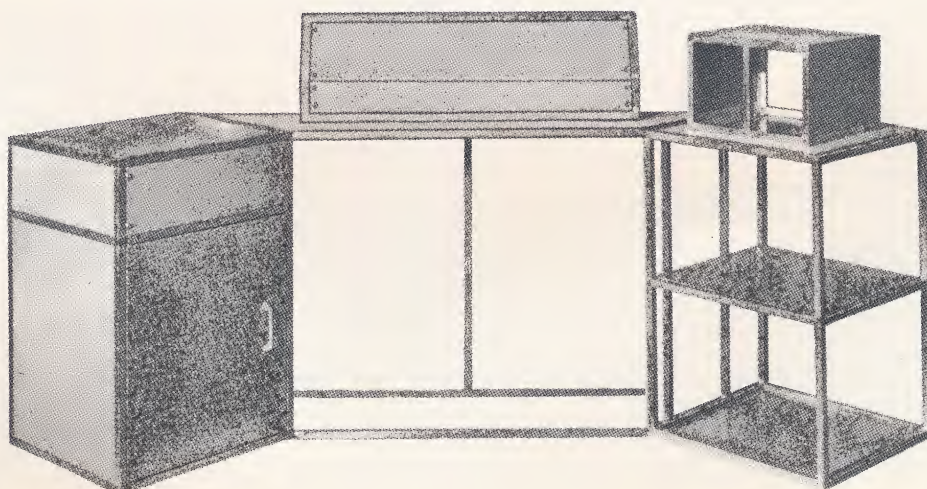


So simple that within minutes you can develop a framework of almost any design. Fast, easy assembly: insert the locking clips in the aluminum corner castings—slip the castings into the aluminum extrusions—and you have a framework. No welding—no special tools.

So versatile you can develop frameworks from 3" to 12'0" in height, width or depth. Angles or slopes from 0° to 90° can be constructed using a single hinged casting. With a selection of 20 separate extrusions, most any type of framework may be developed.

Utilizing extrusions with retaining grooves, an entire enclosure may be assembled, including panels, with no welding or drilling, no nuts and bolts. This eliminates hardware for that clean modern look.

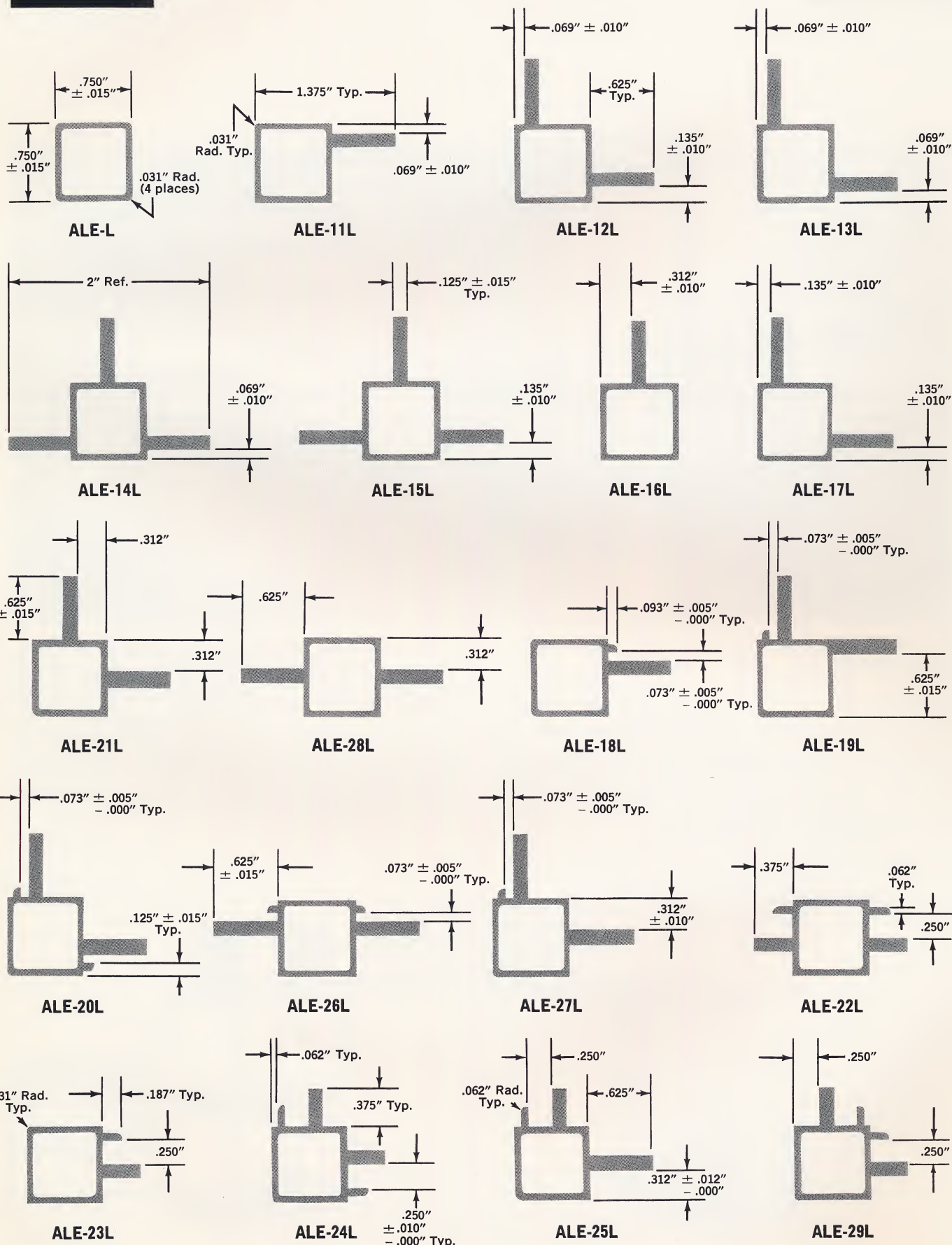
So inexpensive you can stock the parts in your own warehouse. For that special instrument cabinet, test-stand, equipment cart, or prototype set-up, you don't have to wait weeks or months for delivery. Simply take it from stock and have it assembled.





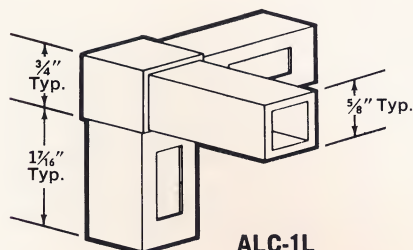
LIGHTWEIGHT ALUMINUM EXTRUSIONS

NOTE: All sharp corners shown
are .015" maximum radii.

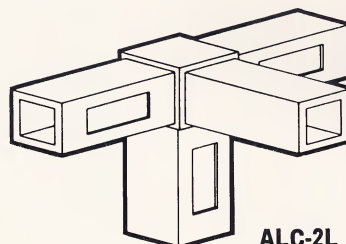




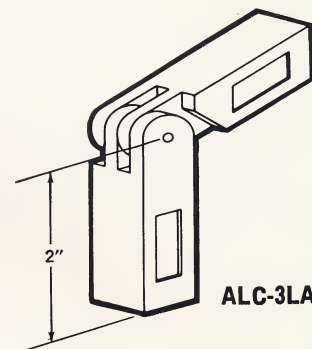
LIGHTWEIGHT ALUMINUM CASTINGS



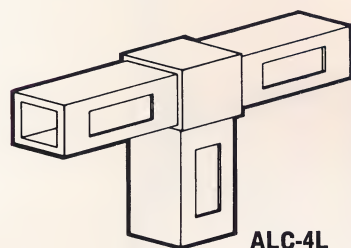
ALC-1L



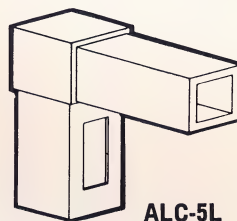
ALC-2L



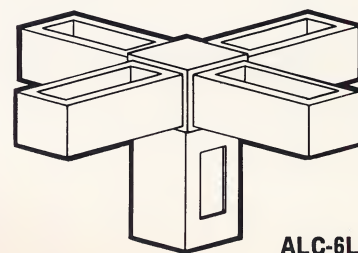
ALC-3LA



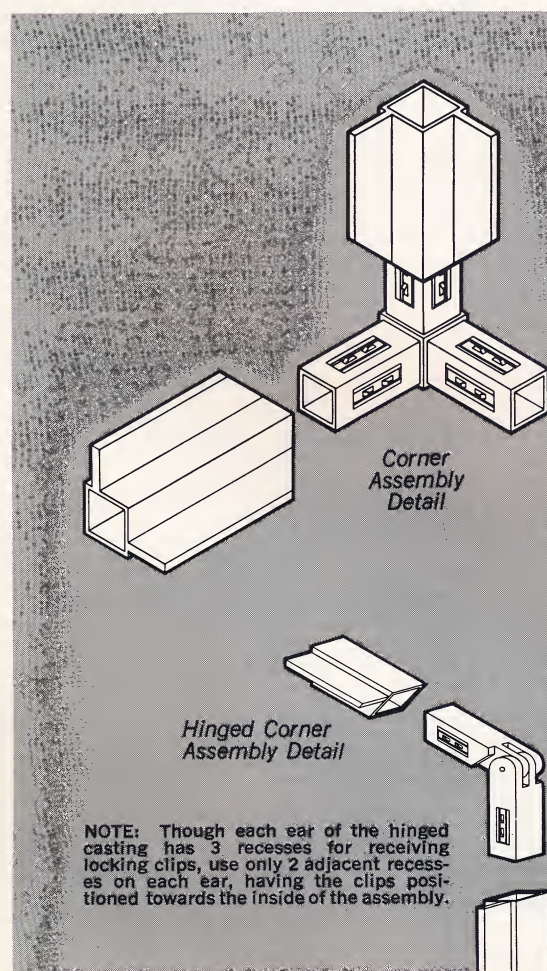
ALC-4L



ALC-5L



ALC-6L



NOTE: Though each ear of the hinged casting has 3 recesses for receiving locking clips, use only 2 adjacent recesses on each ear, having the clips positioned towards the inside of the assembly.



ALC-SL

LOCKING CLIP

This unique locking clip eliminates the use of hardware and tools, yet when assembled as described, will withstand a pull force of 200 pounds per casting leg.

To assemble, place the locking clip in the recess of the casting, being sure the clip projections are toward the corner. Slip the casting into the extrusion and the entire assembly is securely locked together.

All required locking clips will be supplied with castings ordered at no additional charge.



ALC-SLU

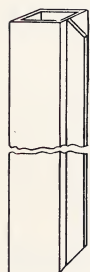
NON-LOCKING CLIP

Although all corner castings are supplied with the appropriate number of locking clips, special non-locking clips are available and may be substituted for the locking type in units where easy disassembly is a requirement. Assembly with non-locking clips is the same as with the locking type, and the stability of the configuration is essentially the same.

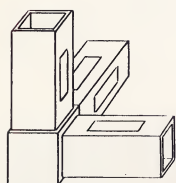


EASY ASSEMBLY

Here is the simplest, yet most versatile enclosure system ever developed. Within minutes you can assemble a cabinet frame of almost any configuration with AMCO lightweight aluminum castings and pre-cut aluminum extrusions.



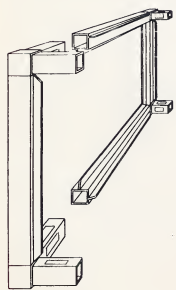
Detail 1



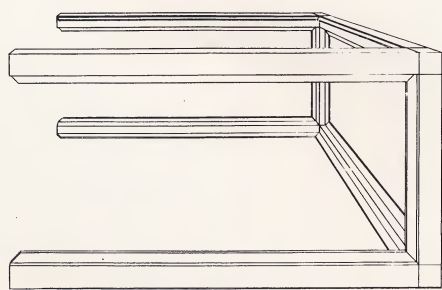
Detail 2

ASSEMBLY INSTRUCTIONS:

1. Parts required:
 - a. Corner castings, 8 required—AMCO Part No. ALC-1L.
 - b. Extrusions, 12 required—refer to page 4 for types available.
2. Cut extrusions to desired length.
3. Mitre flanges at ends of extrusions.
4. Pre-assemble unit without locking spring clips to check frame size.
5. Place locking spring clips (ALC-SL) into slots of casting as shown on page 5.
6. Insert casting ear into aluminum extrusion.

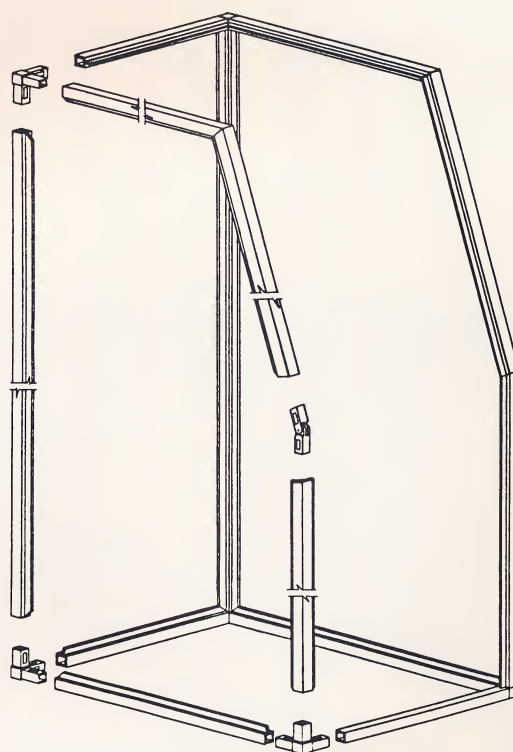


Detail 3



ASSEMBLY HINTS:

When assembling any structure of the AMCO lightweight aluminum line, first pre-cut all the extrusions. From this point on develop sub-assemblies, i.e. a top assembly, bottom assembly, or side to side assemblies, or front and back assemblies. Always attempt to make-up the largest part as a sub-assembly. From these sub-assemblies, assemble to the final configuration. Refer to details 1, 2 and 3 as guides.



ASSEMBLY INSTRUCTIONS:

1. Parts required:
 - a. Corner castings, 6 required — AMCO Part No. ALC-1L.
 - b. Hinged castings, 4 required — AMCO Part No. ALC-3LA.
 - c. Extrusions, 13 required—refer to page 4 for types available.
2. Cut extrusions to desired length.
3. Mitre flanges at ends of extrusions.
4. Pre-assemble slope front unit without locking clips to check frame size.
5. Place locking clips into slots of casting as shown on page 5.
6. Insert casting ear into aluminum extrusion.



ASSEMBLY OF GROOVED EXTRUSIONS

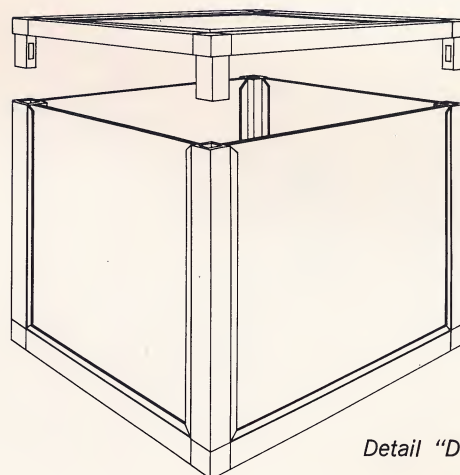
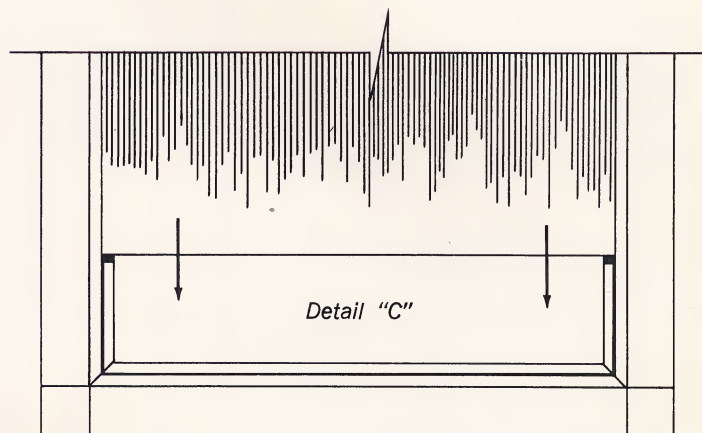
Extrusions ALE-18L, ALE-19L, ALE-20L, ALE-26L and ALE-27L are formed to receive 14 gauge aluminum or 16 gauge steel panels.



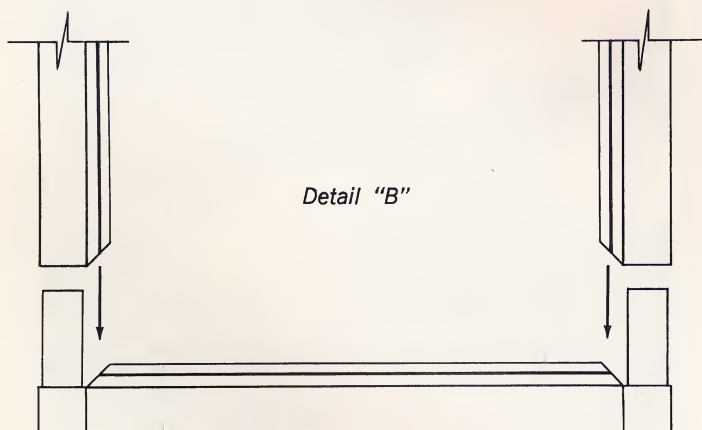
Detail "A"



Extrusions ALE-22L, ALE-23L, ALE-24L, ALE-25L and ALE-29L are formed to receive all material $\frac{1}{4}$ " thick.



Detail "D"



Detail "B"

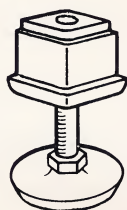
ASSEMBLY INSTRUCTIONS:

1. Select the types of extrusions to be used based on panel material (refer to Detail "A").
2. Cut the extrusions to desired length.
3. Mitre flanges at ends of extrusions.
4. Preassemble the complete base unit without locking clips to check frame size.
5. Place locking clips into the slots of the castings as shown on page 5.
6. Insert casting ear into the aluminum extrusion and assemble complete unit (see Detail "B").
7. Repeat steps 2 through 6 to form sides of the unit.
8. Cut panels to size and insert into the channels of the extrusions. (Detail "C".)
9. Assemble complete top unit, with or without a panel in place as desired.
10. Insert locking clips into the exposed ears of the castings of the top unit and assemble the top unit to the sides to complete the assembly. (Detail "D".)



LIGHTWEIGHT ALUMINUM ACCESSORIES

In most cases, the friction fit of the accessory into the extrusion will provide sufficient holding power. Where additional holding power is desired, refer to use and discussion of epoxies for wall mounted extrusions, as well as test data on epoxies on page 10.

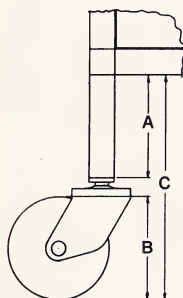


ALLD-1L
Leveler

LEVELER

Sold in pairs, complete with threaded nylon sockets.

ALLD-1—# 1/4-20" x 1 1/2" stud, nickel-plated, white plastic base.



H-297
1 5/8" Dia. Caster

H-298
3" Dia. Caster

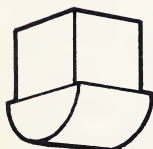
Part No.	A	B	C
H-297	3" Min.	1 5/8"	5 1/4" Min.
H-298	3" Min.	3"	6 25/64" Min.

CASTERS

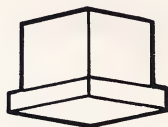
Pivot bearing, sold in pairs and complete with nylon sockets for mounting.

H-297—1 5/8" diameter plaskite white wheel, load capacity per caster: 70 pounds.

H-298—3" diameter plaskite white wheel, load capacity per caster: 100 pounds.



H-296
Rocker Glide



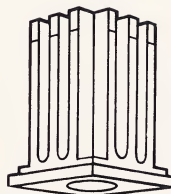
H-311
Flat Glide

GLIDES

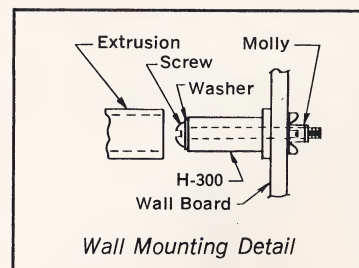
Set of 4.

H-296—3/4" square, white Hi-flex rocker base glide.

H-311—3/4" square, white Hi-flex flat base glide.



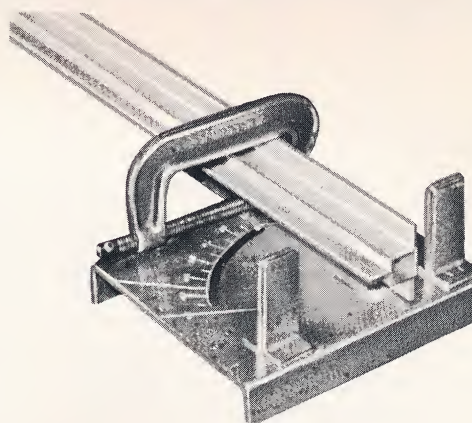
H-300
Wall, Floor
or Ceiling
Mount



WALL, FLOOR OR CEILING MOUNT

Set of 4.

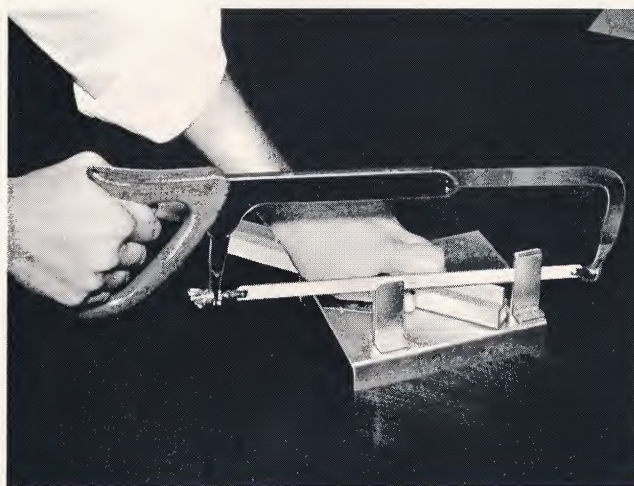
H-300—Use with other available hardware.
See wall mounting detail.



MBL-1
Mitre Box

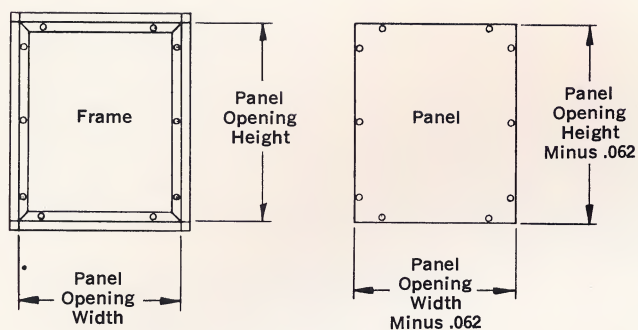
DO-IT-YOURSELF MITRE BOX

A simple mitre box allows you to easily cut flanges on extrusions to a desired corner angle. For cutting and mitering extrusions, use a good quality hacksaw blade with 24 to 28 teeth per inch.





PANEL DESIGN, MOUNTING AND HOLE LAYOUT



PANEL DESIGN



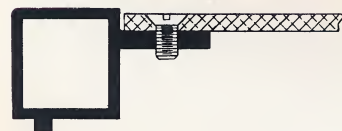
PANEL MOUNTING (Detail #1)

For 1/16" thick aluminum panels, use #4-40 x 3/8" long cadmium-plated steel, flat head machine screws, AMCO Part No. H-301-6.

For 1/8" thick aluminum panels, use #4-40 x 3/8" or #10-32 x 1/2" long cadmium-plated steel, flat head machine screws, AMCO Part No. H-36-8.

For #4-40 machine screws, use #4-40 cadmium-plated steel keps nut, AMCO Part No. H-80-3.

For #10-32 machine screws use #10-32 cadmium-plated steel keps nut, AMCO Part No. H-80-10.



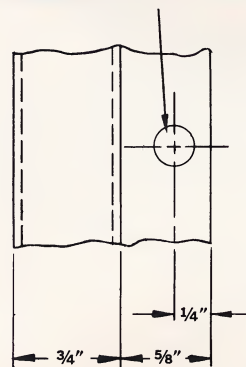
PANEL MOUNTING (Detail #2)

For 1/16" thick aluminum panels, use #4-40 x 5/16" long cadmium-plated steel, flat head machine screws, AMCO Part No. H-301-5.

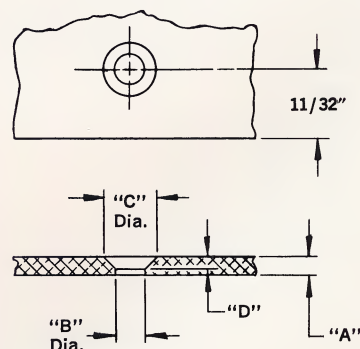
For 1/8" thick aluminum panels, use #10-32 x 3/8" long cadmium-plated steel, flat head machine screws, AMCO Part No. H-36-6.

Round, oval or ornamental head screws can also be used in place of flat head screws. Available locally.

Recommended maximum hole spacing is 15 inches.



RECOMMENDED HOLE LAYOUT IN ALUMINUM EXTRUSIONS

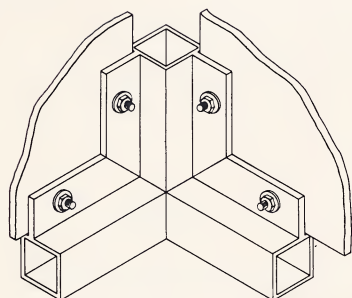


RECOMMENDED HOLE LAYOUT IN ALUMINUM CLOSURE PANELS

A	B	C	D
1/16" aluminum	5/32"	15/64"	1/16"
1/8" aluminum	9/32"	25/64"	3/32"



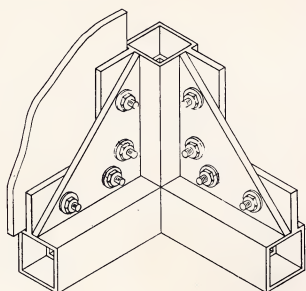
SPECIAL REINFORCING AND SHIELDING



Detail "A"

PANELS ACT AS GUSSETS

When adding the enclosure panels to the extrusion assembly and securely fastening on four sides as shown in Detail "A", the panels not only act as gussets, but add appreciable strength and rigidity to the structure.



Detail "B"

ALUMINUM GUSSETS

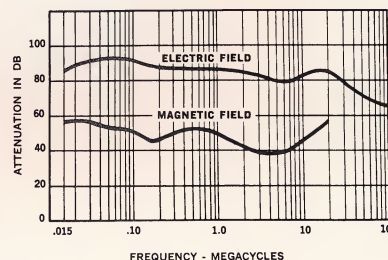
With the addition of $\frac{1}{8}$ inch thick aluminum gussets (as shown in Detail "B") simply bolted in place with the required enclosure or side panel will reinforce the structure to survive severe shock and vibration. To order, specify amount required. AMCO Part No. ALG-L. (Each gusset is complete with four, 10-32 x $\frac{3}{8}$ " F.H.M.S. and nuts; cadmium-plated, with dichromate dip for 200 hour salt spray. Two holes are drilled in each leg of the gusset for screws. The gussets, of $\frac{1}{8}$ " thick unfinished aluminum, have legs $2\frac{1}{2}$ " long.)

When using gussets with extrusions providing a $\frac{1}{4}$ " captivated groove, it is suggested that epoxy be used in lieu of screws.

EPOXY

For that particular reinforcing problem that cannot be solved by the methods suggested above, a new epoxy adhesive, available through AMCO Engineering Co. and their local representatives is suggested. This new, high-strength adhesive and general purpose sealant comes in two separate tubes, in kit form. It permits mixing of only the amounts actually required for each use. When the epoxy and curing agent have been properly applied to the lightweight aluminum castings and extrusions, or extrusions and aluminum paneling, it provides a virtually non-shrinking bonding strength of 650 pull pounds per square

inch. This figure may vary when other materials are used. Prior to application of the epoxy, a light sanding of the surfaces to be bonded is suggested. In addition to frame reinforcement, the epoxy is recommended for mounting the enclosure panels to the frame structure for that clean, no-hardware appearance. Epoxy will bond metals, wood, plastics, glass and some rubber to each other. Refer to application instructions in each kit for full details. AMCO Part No. H-299.



ATTENUATION TEST ON AMCO CABINET
.015MC-100MC
21 AUG 64

RADIO FREQUENCY INTERFERENCE (R.F.I.) SHIELDED ENCLOSURE

Attenuation characteristics, as shown on the chart may be obtained or exceeded with AMCO lightweight aluminum, when properly assembled per AMCO specifications. By locating R.F.I. mesh between the flanges of the extrusions and the enclosure panels, and mounting with machine screws and nuts on approximately 4-inch centers, an excellent Radio Frequency Shielded enclosure can be assembled. Prior to assembling the cabinet, the mounting areas required for R.F.I. shielding should be treated with irridite to provide a conductive, non-corrosive surface for shielding.

(Note: when a die casting is caustic-etched, irridited or alodine-treated, it will always be appreciably darker in color than the extrusion treated in the same manner. This result is due to the copper content of the die-casting.)

The graph above shows the certified test results conducted by the Potter Company in Skokie, Illinois, of an enclosure assembly using tin-plated cad copper R.F.I. mesh gasketing.

We suggest, in cases of R.F.I. applications, that you contact your local representative or the factory direct, for consultation. AMCO Engineering has a continuous program in research of magnetic and electrical frequency shielding methods.

SPLASH PROOFING LIGHTWEIGHT ALUMINUM ENCLOSURES

The suggested material to use for water resistance is 1/16 inch thick rubber. For installation use $\frac{5}{8}$ inch wide by 1/16 inch thick (minimum) strips and bond to $\frac{5}{8}$ inch flange of extrusions with a silicon rubber adhesive. Take caution to seal all seams and cracks. For other sealing applications contact the factory.



IN-PLANT STOCKING OF LIGHTWEIGHT ALUMINUM

The versatility of this unique, new AMCO system means:

PARTS YOU CAN STOCK FOR QUICK IN-PLANT ASSEMBLY OF RACKS AND ENCLOSURES OF EVERY TYPE AND SIZE

When you want a cabinet for special test equipment, false flooring, QC control, tool racks, equipment cabinets, prototype set-ups, you want it right now.

Why wait weeks or months for delivery on a custom unit?

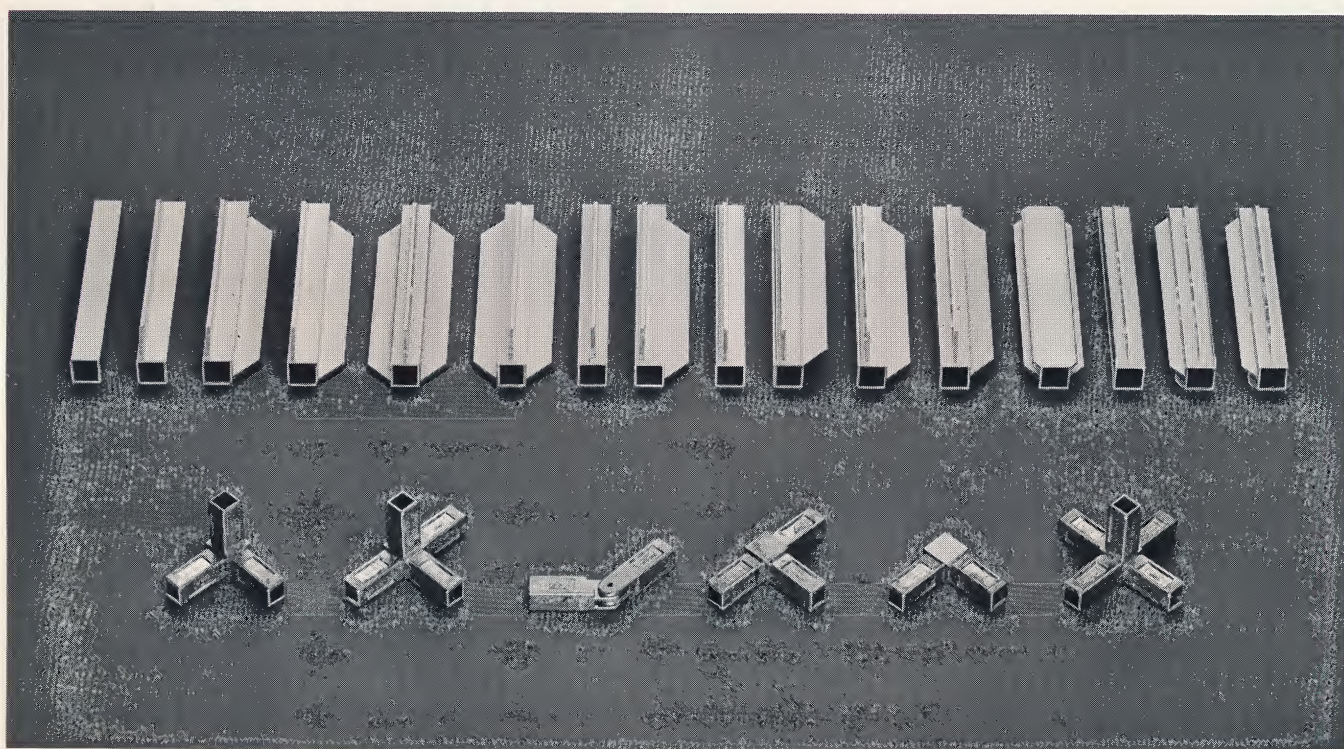
You have seen in this catalog the simplicity of this new AMCO system. The ease of construction. The time and money savings it makes possible.

What greater convenience than having these materials on hand right where and when you need them?

Eliminate hardware and achieve that clean, modern look by utilizing the AMCO extrusions with the retaining slot which holds panels in place without nuts and bolts or special hardware. Have it on hand and save time and money.

A minimum stock of AMCO lightweight aluminum extrusions and corner castings maintained in your own plant can solve a lot of problems.

In a matter of minutes, you can put together your own enclosure frames for almost any purpose.





ORDERING PROCEDURE AND FINISHING INSTRUCTIONS

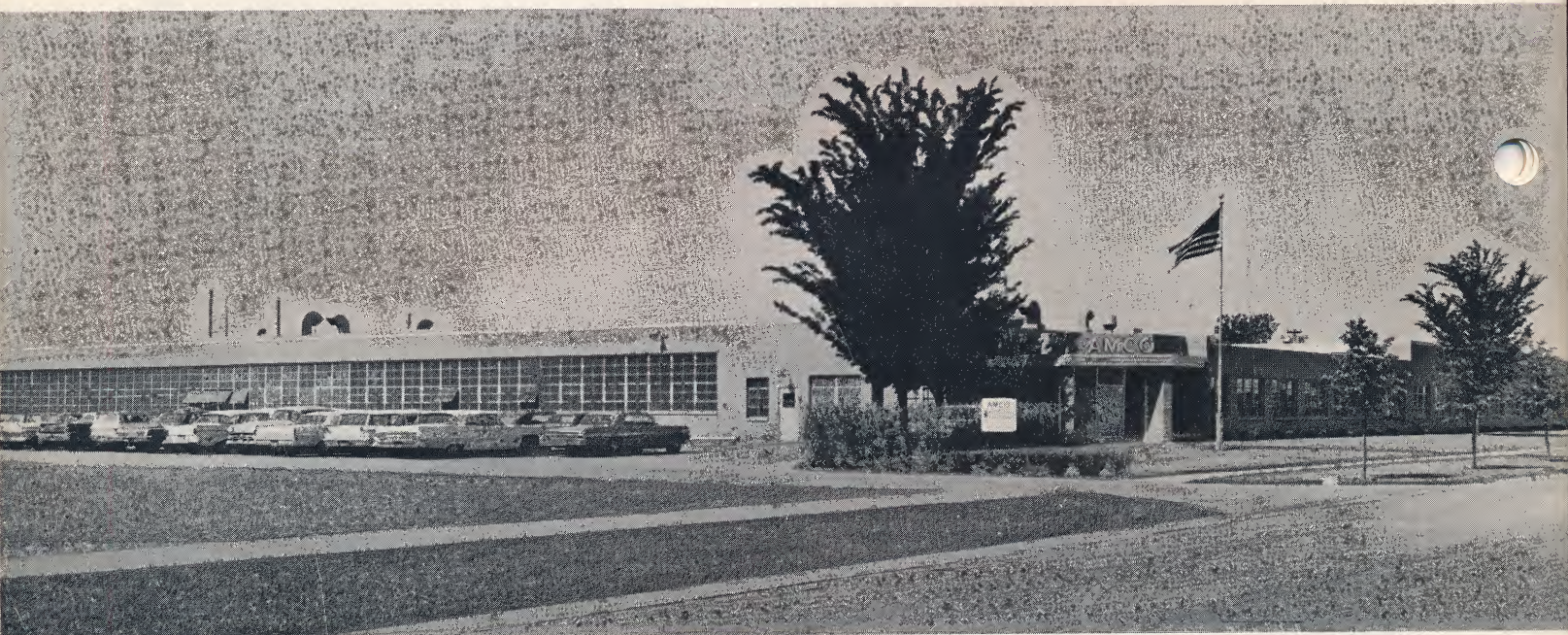
FINISH

Aluminum castings and extrusions may be painted. Suggested method is to cleanse thoroughly with a solvent, compatible to the primer being applied, apply a thin coat of chromate primer, compatible to the type of paint to be applied, and then apply finish coat. Either baking or air-dry may be used. When anodizing either clear or colored, the casting will always be darker than the extrusions, due to the added copper content in the die-castings. For uniformity in appearance, castings may be polished and then clear lacquered. In this manner, they will more closely blend to the color texture of the extrusion.

SIMPLE ORDERING PROCEDURE

Extrusions are available in 6-foot and 12-foot lengths. Corner castings and accessories are bulk-packed per order. Consult No. 208 Price List for correct pricing information.

Extrusions and castings are supplied with a natural finish but other finishes are available on special order at a moderate additional charge. Additional accessories such as enclosure panels (in steel or aluminum), drawers and interior mounting channels are also available in most cases. Assembly of cabinets or enclosures on a production run utilizing lightweight aluminum is another AMCO Engineering service. Contact your local representative or the factory for quotations or design service.



AVAILABLE FROM OPEN STOCK . . . CONTACT YOUR LOCAL REPRESENTATIVE



IN STEP WITH THE FUTURE . . .

AMCO ENGINEERING CO.

7333 West Ainslie Street, Chicago, Illinois 60656
Phone: (Area Code 312) UNderhill 7-8500
TWX: 312-265-1376